Testing transformed by Cypress: Spotahome's test-first engineering culture

One of the leading online home booking services in Europe, Spotahome connects property owners with people looking for mid-to-long term residential rentals. Challenges include guaranteeing a world-class user experience, ensuring remote teams work cohesively, and frequent releases to their online service.

Nimble teams for quick, efficient deployment

Spotahome's goal is to put the entire home rental process online, from booking to payment. They have adopted a Back-end For Front-end (BFF) approach, splitting the whole platform into smaller projects which are managed individually to enable faster deployment. The team has a geographically dispersed team of 60* engineers, with plans to double in size quickly. Product team 'squads' are each dedicated to a specific application feature, consisting of 3-5 front- and back-end developers, a QA automation engineer, product manager, tech lead and a UX specialist.

* As of August 2019.

Challenge: Delivering quality amidst non-stop innovation and fast growth

With different teams working on end-to-end feature development across BFFs simultaneously, comprehensive QA is essential to make certain the end result – a flawless user experience – happens every day. All this means up to 250 deployments weekly – and the platform needs to continue working as expected too. Fitting in testing for scenarios like long-term scheduled tasks (e.g. sending alerts to users) adds another layer of complexity.

Spotahome's initial Selenium-based tests held the team back: test runs took hours, test flakiness caused unreliability, feature coverage was low, and only a few team members knew how to develop and maintain the tests.

These challenges and the need to radically increase the pace of feature delivery meant Spotahome had to find a better option.

Results & Impact

130+
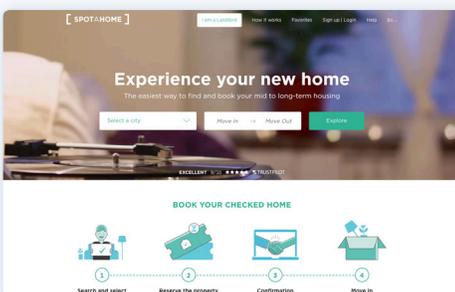test runs per week

160+
test scenarios created

250
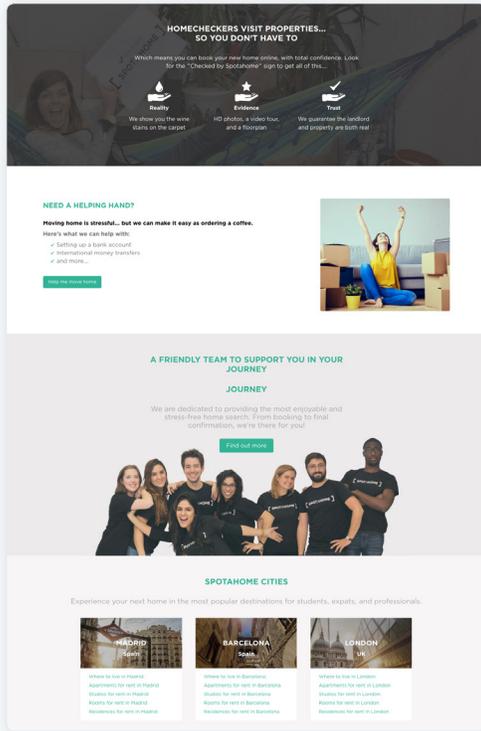deployments per week

<8 minutes
run time for all tests

Up to 70%
of time saved by parallelization

> "We'd seen lots of tweets saying Cypress's communication is really good - and it's true. The documentation is easy to follow and we could find whatever we needed. There are lots of supportive and helpful people in the community."

David Zambrana
QA Automation Engineer at Spotahome

Why Spotahome switched to Cypress

- Cypress fits into their existing JavaScript-based architecture, tools and processes
- On-boarding the development team is now much easier
- A vibrant community provides guidance and helps resolve blockers
- Cypress's open source Test Runner aligns with Spotahome's commitment to open source software
- Load balancing and parallelization optimizes performance for faster test runs and feedback
- The Cypress Dashboard provides extensive information and detailed insights at a glance
- The live log and snapshots make debugging very easy

Spotahome tested Cypress on an internal app first - with its success proving that it would help with the customer platform. Test scenarios were authored quickly, integrating smoothly with their continuous integration (CI). Soon, production releases were being tested daily, and the Cypress JavaScript framework made it easy for Spotahome's developers to start supplementing the QA engineers' testing.

Testing, transformed

Extending testing capabilities beyond the QA team to front-end developers and the other squad members has truly created a culture of testing at Spotahome.

They balanced their Cypress automation with manual testing by appointing a functional tester to every squad, who conducts extensive exploratory testing for every new release. "Combining these testing methodologies gives us a pretty good feeling about quality. We feel we have stronger coverage than before," says David Zambrana, QA Automation Engineer.

Brigade/Cypress parallelization means that tests now take no longer than 8 minutes (most take 4-5 minutes). Spotahome

runs over 130 of their 160 test scenarios each week, depending on feature releases. Results are centralized in the Cypress Dashboard, and Slack integration helps the team catch and fix bugs faster. "Centralizing the results means we just need to check one place to see the state of our application - and we can react quickly if something goes wrong."

Future plans

Cypress now handles Spotahome's entire UI automation. At least one person in each squad has access to the Dashboard. The team is working on restructuring test data to make it reusable and flexible, and also plans to investigate how to use Cypress with visual test regression. And as their service expands further into Europe, the squads are bound to be busy...

About Cypress

With millions of downloads and users in over 90 countries, Cypress is the leader in browser-based test automation for the modern web. Cypress enables developers and enterprises to easily, quickly and accurately test anything that runs in a browser - empowering developers to build web applications faster and better.

Using the Test Runner, developers can quickly create and run live end-to-end tests for complex user workflows and interactions, and complex scenarios in applications including e-commerce. The Dashboard service provides collaboration and sharing between teams and records screenshots, video, and test runs - while seamlessly integrating with existing tools and processes. For more information, visit **cypress.io**